

U.S.S.N. 10,656,986

Claim Amendments

Please amend claims 1, 6, 11-14, and 20 as follows:

Please cancel claim 19 as follows:

Please add new claim 21 as follows:

Claims as Amended

1. (currently amended) A method for exposing a blanket photoresist layer to achieve optimal photoexposure conditions to produce different non-overlapping die patterns comprising:

providing a substrate having formed thereover a photoresist layer; and

exposing within a single die region within the photoresist layer a minimum of two non-overlapping die sub-patterns while employing a minimum of two masks, each of said masks associated with one of said non-overlapping die sub-patterns, each of said non-overlapping die patterns comprising a different pattern subjected to a different photoexposure condition.

2. (original) The method of claim 1 wherein the substrate is a semiconductor substrate.

3. (original) The method of claim 1 wherein the substrate is a ceramic substrate.

4. (original) The method of claim 1 wherein the blanket

photoresist layer is formed of a positive photoresist material.

5. (original) The method of claim 1 wherein the blanket photoresist layer is formed of a negative photoresist material.

6. (currently amended) A method for exposing a photoresist layer to achieve optimal photoexposure conditions to produce different non-overlapping die patterns comprising:

providing a substrate having formed thereover a photoresist layer; and

exposing within a single die region within the photoresist layer a minimum of two non-overlapping die sub-patterns while employing a minimum of two masks and two exposure conditions, each of said masks associated with one of said non-overlapping die sub-patterns, each of said non-overlapping die patterns comprising at least one of a different pattern density and a different pattern complexity subjected to a different photoexposure condition.

7. (original) The method of claim 6 wherein the substrate is a semiconductor substrate.

8. (original) The method of claim 6 wherein the substrate is a ceramic substrate.

9. (original) The method of claim 6 wherein the photoresist layer is formed of a positive photoresist material.

10. (original) The method of claim 6 wherein the photoresist layer is formed of a negative photoresist material.

11. (currently amended) The method of claim 6 wherein the photoexposure condition[[s]] includes exposure energy.

12. (currently amended) The method of claim 6 wherein the photoexposure condition[[s]] includes depth of focus.

13. (currently amended) The method of claim 6 wherein the photoexposure condition[[s]] includes illumination.

14. (currently amended) A method for forming a patterned layer to achieve optimal photoexposure conditions to produce different non-overlapping die patterns comprising:

providing a substrate having formed thereover a target layer having formed thereover a photoresist layer;

exposing within a single die region within the photoresist layer a minimum of two non-overlapping die sub-patterns while employing a minimum of two masks, to form an exposed photoresist layer, each of said masks associated with one of said non-overlapping die sub-patterns, each of said non-overlapping die patterns comprising at least one of a different pattern density and a different pattern complexity subjected to a different exposure condition;

developing the exposed photoresist layer to form a patterned photoresist layer; and

processing the target layer to form a processed target layer while employing the patterned photoresist layer as a mask layer.

15. (previously presented) The method of claim 14 wherein the substrate is a semiconductor substrate.

16. (previously presented) The method of claim 14 wherein the substrate is a ceramic substrate.

17. (previously presented) The method of claim 14 wherein the blanket photoresist layer is formed of a positive photoresist material.

18. (previously presented) The method of claim 14 wherein the blanket photoresist layer is formed of a negative photoresist material.

19. cancelled.

20. (currently amended) The method of claim ~~[[19]]~~ 14 wherein the ~~separate different photoexposure condition[[s]] are~~ is selected from the group including exposure energy, depth of focus and illumination.

21. (new) The method of claim 1, wherein each of said non-overlapping die patterns comprises at least one of a different pattern density and a different pattern complexity.

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